

===== WPI =====

TI - Mfg. semiconductor device for deposition of tungsten in contact hole - by using hydrogen@ and chlorine@ gas mixt. as plasma etching gas, on titanium nitride film

AB - J08274076 The mfr. involves forming an insulating film which is a SiO2 film (32) on a semiconductor substrate (30). A contact hole (34) is formed in the insulating film. A TiN film (36) is deposited over the SiO2 film including the contact hole.

- A W film (38) is formed over the entire set up. Etch back by plasma etching process containing H2 and Cl2 gas mixture is carried out on the W film. Thus, tungsten material remains only in the contact hole.

- ADVANTAGE - The method prevents reduction in product yield.

- (Dwg.2/3)

PN - JP8274076 A 961018 DW9701 H01L21/3065 005pp

PR - JP950076436 950331

PA - (KAWI) KAWASAKI STEEL CORP

MC - L04-C07D L04-C12A L04-C12B L04-C13B

- U11-C05G2C

DC - L03 U11

IC - H01L21/203 ;H01L21/28 ;H01L21/3065 ;H01L21/768

AN - 97-004816 [01]

===== PAJ =====

TI - MANUFACTURE OF SEMICONDUCTOR DEVICE

AB - PURPOSE: To provide a manufacturing method of a semiconductor device wherein a brown ring is easily removed, thus preventing reduction in yield due to the brown ring.

- CONSTITUTION: A W layer 38 formed on a TiN layer 36 is etched back so that the W layer 38 is buried in a contact hole 34. At the final stage of this etch back, a brown ring is removed using H2 gas and Cl2 gas.

PN - JP8274076 A 961018

PD - 96-10-18

ABD - 970228

ABV - 097002

AP - JP950076436 950331

PA - KAWASAKI STEEL CORP

IN - TSUKUMO TOSHIKI

I - H01L21/3065; H01L21/203; H01L21/28; H01L21/768

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